

DEPARTMENT OF ~~LABOR & ECONOMIC GROWTH~~**LICENSING AND
REGULATORY AFFAIRS**

DIRECTOR'S OFFICE

ELEVATORS

Filed with the Secretary of State

These rules take effect 30 days after filing with Secretary of State

(By authority conferred on the director of the department of ~~labor and economic growth~~**licensing and regulatory affairs** by section 8 of 1967 PA 227, MCL 408.808 and **section 3** of 1976 PA 333, **MCL 338.2153**, Executive Reorganization Order Nos. 1996-2 and 2003.1, **2008-4 and 2011-4**, ~~MCL 408.808 and~~ **MCL 445.2001**, 445.2011, **445.2025**, and **445.2030**)

R 408.7001, R 408.7002, R 408.7003, R 408.7011, R 408.7019, R 408.7020, R 408.7021, R 408.7023, R 408.7024, R 408.7025, R 408.7026, R 408.7029, R 408.7030, R 408.7032, R 408.7034, R 408.7041, R 408.7051, R 408.7052, R 408.7055, R 408.7056, R 408.7058, R 408.7059, R 408.7059a, R 408.7060, R 408.7069, and R 408.7071 of the Michigan Administrative Code are amended, and R 408.7023a, R 408.7023b, R 408.7031a, R 408.7055a, and R 408.7060a of the Code are added, and R 408.7035, R 408.7036, R 408.7037, R 408.7040, R 408.7044, R 408.7050, R 408.7063, R 408.7064, R 408.7065, R 408.7066a, and R 408.7067 of the code are rescinded as follows:

CHAPTER 1. GENERAL PROVISIONS

R 408.7001 Scope.

Rule 1. These rules establish administrative and operational procedures for implementation of ~~the actthe elevator safety act of 1967~~ **and shall be known as the Michigan elevator rules**. The rules establish, for protection of the general public, minimum safety requirements for inspection, construction, installation, alteration, maintenance, repair, and operation of elevators.

R 408.7002 Definitions.

Rule 2. (1) As used in these rules:

(a) "Act" means **elevator safety board**, 1967 PA 227, MCL 408.801 ~~et seq.~~ **to 408.824** ~~and known as the elevator safety board act~~.

(b) "Belt manlift" means a power-driven endless belt which has steps and handholds and which is used to transport persons in a vertical direction through successive floors or levels of a building or structure.

(c) "Department" means the department of ~~labor & economic growth~~**licensing and regulatory affairs**.

(d) "Electrical-powered, 1-man elevator" means an elevator that has a car platform area of not more than 5 square feet, a rated load of not more than 300 pounds, and a rated speed of not more than 100 feet per minute. It is for the exclusive use of certain

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designated operating and maintenance employees and is installed in any of the following structures:

- (i) A grain or feed mill.
- (ii) A chemical or alcohol distillery.
- (iii) A cement storage tower.
- (iv) A radio tower.
- (v) A similar structure that is not accessible to the general public.

(e) "Examination" means a survey of the design and construction of elevators or elevator equipment by a dealer in elevators or elevator equipment or an approved insurance company.

(f) "Hand-powered, 1-man elevator" means an elevator which has a car platform area of not more than 5 square feet, which has a rated load of not more than 300 pounds, and which is operated from the car only by pulling on a stationary rope that is located in the hoistway and passing through or adjacent to the car platform. The elevator is for the exclusive use of certain designated operating and maintenance employees and is installed in a grain or feed mill or a similar structure that is not accessible to the general public.

(g) "Inspection" means the official determination by a general inspector of the condition of all parts of equipment on which the safe operation of an elevator depends.

(h) "Private residence **elevator**" means any elevating device installed in or at a private residence or installed in a building as a means of access to a private residence within such building, provided the elevator is installed so that it is not accessible to the general public or to other occupants in the building. The use is restricted to the owner and the owner's immediate family and nonpaying guests. All other elevating device installations shall be classified as commercial.

(i) "Private residential incline elevator" means a private residence inclined elevator for use on a property of a private residence or homeowners' association in accordance with the act.

~~(j)~~(j) "Special elevating device" includes other lifting or lowering apparatus which is guided as provided in section 3 of the act.

~~(k)~~(k) "Temporary inspection" means the inspection of a permanent elevator that is to be used on a temporary basis.

(2) Terms defined in the act have the same meanings when used in these rules.

R 408.7003 Applicability of national standards.

Rule 3. The following standards are adopted by reference.

(a) The following standards are available from the American Society of Mechanical Engineers (ASME), 22 Law Drive, Box 2900, Fairfield, New Jersey 07007-2900, at a cost as of the time of adoption of these rules, as stated in this subrule:

(i) ASME A17.1-~~2007~~**2010** safety code for elevators and escalators, except for sections ~~1.2.1(b), 1.2.1(e), 2.5.1.5.3, 2.8.3.3.2, 2.8.6, 2.11.1.3, 2.11.1.4, 2.11.7.2, 2.11.7.2.1, 2.11.7.2.2, 2.11.7.2.3, 2.11.7.2.4, 2.11.7.2.5, 2.14.2.2(f), 2.14.2.6, 2.14.5.8.2, 2.16.5.1.3, 2.22.2, 3.18.3.8.3, 3.19.5.2, 3.22.1.6, 5.3.1.1.1, 5.3.1.1.2, 5.3.1.2.1, 5.3.1.14.3, 5.4.10.2, 8.6.5.8, 8.6.11.4~~**8.6.11.5 to 8.6.11.5.6, 8.10.1.1.3, 8.11.1.1, 8.11.1.1.1, 8.11.1.1.2.** Cost ~~\$250.00~~**\$310.00.**

(ii) ASME A17.2-~~2007~~**2012** guide for inspection of elevators, escalators, and moving walks. Cost ~~\$165.00~~**\$180.00.**

(iii) **ASME A17.6-2010 standard for elevator suspension, compensation, and governor systems. Cost \$90.00.**

(iv) **ASME A17.7-2007 performance-based safety code for elevators and escalators, except for where the Michigan elevator rules make an exception to, addition to, or an amendment of, an ASME A17.1/CA B44 code section the Michigan elevator rules shall govern over the corresponding section in ASME A17.7/CA B44.7 and must obtain department approval. Cost \$155.00.**

~~(iiiiv)~~ **ASME A18.1-20082011 safety code standard for platform lifts and stairway chairlifts, except for sections 2.1.2 to 2.1.2.8, 2.1.3 to 2.1.3.10, 3.10.2 to 3.10.2.4, 10.1.1, 10.1.2 to 10.1.2.3, 10.1.3.3, 10.1.4, and 10.2.1. Cost \$87.00\$90.00.**

~~(ivvi)~~ **ASME A90.1-20032009 safety standard for belt manlifts. Cost \$57.00\$59.00.**

(b) **ANSI A10.4-2007, the American national standards institute (ANSI), safety requirements for personnel hoist and employee elevators for construction and demolition and operations, except for sections 24.1.2.1, and 26.4.8.1, 26.6, and 30.4, is available from ANSI at 1430 Broadway, New York, New York, 10018. Cost \$69.00\$74.00.**

(c) The following standards are available from American Society for Testing and Materials, (ASTM), 100 Bar Harbor Drive, 2 Conshohocken, PA 19428-2959, at a cost as of the time of adoption of these rules, as stated in this subrule:

(i) **ASTM D 2667-2008, 'Standard test method for biodegradability of alkylbenzene sulfonates'. Cost \$43.00\$47.00.**

(ii) **ASTM E 648-2010, standard test method for critical radiant flux of floor-covering systems using a radiant heat energy source. Cost \$43.00\$47.00.**

(iii) **ASTM F 714-2012, standard specification for polyethylene (PE) plastic pipe (SDR-PR) based on outside diameter'. Cost \$37.00\$47.00.**

(d) The standards adopted in ~~subdivisions of~~ this subrule are also available for inspection at the Michigan Department of ~~Energy, Labor, and Economic Growth~~**Licensing and Regulatory Affairs**, Bureau of Construction Codes, ~~6546 Mercantile Way~~**2501 Woodlake Circle, LansingOkemos, Michigan 4891148864.**

Copies may be obtained from the bureau at the cost of the individual codes as noted ~~in subdivisions of~~ this subrule, plus the department's cost for shipping and handling.

(e) All references to NFPA 70-~~2011~~ mean the Michigan electrical code. The Michigan electrical code is available for inspection or may be purchased from the Michigan Department of ~~Energy, Labor, and Economic Growth~~**Licensing and Regulatory Affairs**, Bureau of Construction Codes 2501 Woodlake Circle, Okemos, Michigan 48864, at a cost as of the time of adoption of these amendatory rules of **\$89.50\$82.50 each.**

R 408.7011 Frequency of inspections.

Rule 11. All elevators shall be inspected by a general elevator inspector pursuant to the following schedule:

(a) Passenger, freight, mine, inclined, limited-use/limited application, special purpose personnel, and rooftop elevators, material lifts, barrier free lifting devices, escalators, moving walks, belt manlifts, and special elevating devices shall be inspected at least once every 12 months.

(b) Dumbwaiters, stairway chairlifts, 1-person elevators, hand-powered; 1-person elevators, electric-powered; platform lifts; and power sidewalk elevators shall be inspected at least once every 24 months.

(c) Personnel hoists shall be inspected at least once every 30 days.

(d) Elevating devices in private residences shall be inspected only at the discretion of the department or owner.

(e) Private residence inclined elevators installed under the requirements of the act for use by multiple residences, shall be inspected at least once every 24 months.

~~(e)~~(f) More frequent inspections may be scheduled at the discretion of the department or owner.

R 408.7019 Fees.

Rule 19. (1) Fees shall be paid in accordance with the following schedule:

Commissions to inspect elevators

Commission	\$50.00.
Commission renewal.....	\$50.00.

Examination for certificates of competency

Certificate of competency examination (nonrefundable)	\$50.00.
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Elevator contractors and journeyperson examination and licenses

Elevator contractor's license and renewal (nonrefundable).....	\$100.00.
Elevator contractor's examination (nonrefundable)	\$100.00.
Elevator journeyperson license and renewal (nonrefundable).....	\$40.00.
Elevator journeyperson examination (nonrefundable).....	\$100.00.

Installation permits

Elevator installation application fee (nontransferable and nonrefundable)	\$60.00.
Base permit fee for each of the following devices:.....	\$200.00.

Passenger elevator

Freight elevator

Mine elevator

Inclined elevator

Limited-use/limited application elevator

Private residence elevator

Private residence inclined elevator

Special purpose personnel elevator

Dumbwaiter

Material lift

Power sidewalk elevator

Rooftop Elevator

Belt manlift

Special elevating device

For the above installations, an additional \$25.00 is charged for each hoistway opening and for each floor traveled without a hoistway opening.

Escalator.....	\$240.00.
Moving walk	\$240.00.

Personnel hoist, initial inspection \$340.00.
 Plus \$25.00 for each hoistway opening and for each floor traveled without a hoistway opening.

Private residence platform lift and private
 residence stairway chairlift \$40.00.
 Platform lift and stairway chairlift in buildings other
 than private residence \$70.00.

Major alteration permits

Elevator alteration application fee (nontransferable and nonrefundable) \$60.00.
 First alteration (including 1 final inspection) \$90.00.
 Each additional alteration \$65.00.
 Personnel hoist tower rise \$90.00.
 Plus \$25.00 for each added hoistway opening and for each floor traveled without a
 hoistway opening.
 Maximum alteration fee (includes \$60.00 nontransferable and nonrefundable application
 fee) \$395.00.

(2) A final inspection fee is included in the installation and alteration permit fee. If a scheduled final inspection is canceled without 24 hours notice to the department, or if the elevator is not complete in the judgment of the general elevator inspector, then an additional fee shall be charged to the elevator contractor as follows:

(a) \$300.00 for private residence elevator, dumbwaiter, platform lift, or stairway chairlift.

(b) \$500.00 for all other devices.

(3) A written request for a refund on a permit must be made within 1 year from the application date. An issued permit shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after work is commenced. A 1-time 180-day permit extension shall automatically be granted when a building permit for the same project remains valid.

Certificate of operation

Biennial and annual certificate of operation \$45.00.
 Temporary certificate of operation \$200.00.

Inspection by general inspector

Biennial inspection for devices complying with R 408.7011(b) \$110.00.

Annual **and biennial** inspection for all other devices \$125.00.
 Plus \$5.00 for each hoistway opening and for each floor traveled without a hoistway opening.

Temporary certificate of operation inspection \$125.00.

Plus \$5.00 for each hoistway opening and for each floor traveled without a hoistway opening.

Reinspection or correction order follow-up for devices complying with R 408.7011(b).. \$110.00.
 Reinspection or correction order follow-up for all other devices \$125.00.

(4) The department may provide, upon written request, special services that are not otherwise covered in the fee structure. The charge for this service shall be at the rate of \$100.00 per hour including travel time.

Fees that are required pursuant to the provisions of the act shall be paid to the department. Checks or money orders shall be made payable to the "State of Michigan."

R 408.7020 Supervising employees.

Rule 20. (1) If a contractor's license is based on the qualification of a supervising employee, then termination of employment of a supervising employee shall result in the suspension of the license 90 days after termination of employment and the license shall remain suspended until another supervising employee is certified for the employer by the board. The supervising employee and the employer shall each notify the department in writing when the termination of the employment of the former occurs.

(2) A person serving as supervising employee of a contractor may not concurrently serve as supervising employee of another contractor. A supervising employee shall be employed on a full-time basis by the contractor.

(3) The person, firm, or corporation and the elevator contractor license holder supervising employee shall be jointly and severally responsible for exercising the supervision and control of the elevator operations necessary to secure full compliance with the act, the rules promulgated under the act, and all other laws and rules related to elevating devices.

R 408.7021 Renewal of contractor's licenses and commissions.

Rule 21. A contractor's license and a commission which has expired may be renewed within 60 days after the date of expiration without examination upon payment of the required renewal fee **and late fee of \$20.00**. A contractor's license and a commission which is not so renewed is considered revoked. **The revoked contractor's license or commission may be reinstated if approved by the elevator safety board, and upon payment of the required renewal fee and reinstatement fee of \$100.00.**

R 408.7023 Appeals to the board.

Rule 23. (1) Any person, firm, or corporation aggrieved by any decision, ruling, or order of the director or of the department may appeal within 15 days from date of mailing of the decision, ruling, or order to the board, for a hearing before the board in accordance with section 8(d) of the act. An appeal shall specify the reasons and the relief sought and shall be submitted to the director for presentation to the board.

(2) A ~~\$200.00 fee of \$25.00~~ **non-refundable fee** shall be ~~deposited with~~ **made to** the department at the time the appeal is filed. Checks or money orders shall be made payable to the "State of Michigan."

(3) The board shall set a time for hearing of the appeal and ~~give~~**provide written** notice ~~by mail~~ to the appellant at least 10 days before the date set for hearing.

(4) A request for an adjournment shall be filed in writing at least 5 days before the date set for hearing. The board or the director may, for good cause, grant an adjournment.

(5) If the appellant fails to appear at the time set for hearing, the board may proceed with the hearing and decide the case in the absence of the appellant. The board may affirm, modify, or set aside the ruling of the department and shall notify the director and the appellant in writing of its decision. ~~The department shall refund the appeal fee if a decision is rendered in favor of the appellant.~~

R 408.7023a Variance requests.

Rule 23a. (1) Any person, firm, or corporation upon application in specific cases, may request a variation of the requirements of the rules when it is clearly evident that exceptions or variations are necessary to prevent undue hardship or when existing conditions prevent compliance with the literal requirements. The request shall be on a form prescribed by the department and specify the reasons and the relief sought and shall be submitted to the department for review.

(2) A \$75.00 nonrefundable fee shall be made to the department at the time the variance request is filed. Checks or money orders shall be made payable to the "State of Michigan".

(3) The department may submit the variance request to the board for its action. The department shall set a time for reviewing a request submitted to the board and provide written notice to the appellant at least 10 days before the date set for the review.

(4) A request for an adjournment shall be filed in writing by the appellant at least 5 days before the date set for the review. The department or the board may, for good cause, grant an adjournment.

(5) If the appellant fails to appear at the time set for the variance request, the action may proceed and the board may decide the request in the absence of the appellant. The request may be approved, denied, modified, or set aside. The department shall notify the appellant in writing of the decision.

R 408.7023b Product approval.

Rule 23b. (1) All elevating devices, equipment, systems, subsystems, components, and functions must be reviewed for compliance with the current elevator requirements and approved by the department prior to use in this state. An initial \$75.00 nonrefundable application fee shall be made to the department at the time of application.

(2) All product approval requests shall be on a form prescribed by the department and accompanied by a compliance document which reflects compliance with the corresponding requirements and supporting documents such as drawings, wiring diagrams, factor of safety calculations, certifications, and any other information the department finds necessary for the specific review.

(3) A rate of \$75.00 per hour shall be charged for special services of a product review. The total charges shall be determined on an hourly basis for the review

upon completion. An approval may not be granted until full payment of these services has been received.

R 408.7024 Applicability of rules and manual.

Rule 24. Elevators as defined in section 3 of the act installed before the effective date of this code edition shall comply with the Michigan elevator laws and rules in effect at the time of adoption of this code until the device is altered. All other approved existing features or components of the elevator shall comply with these rules and shall be maintained as described in the American society of mechanical engineers (ASME) guide for inspection of elevators, escalators, and moving walks ASME A17.22007 -2010, which is adopted by reference in R 408.7003.

R 408.7025 Service and examination of power elevators; frequency; exceptions.

Rule 25. A power elevator, except a private residence elevator, private residence inclined elevator, private residence platform lift, or private residence stairway chairlift, shall be serviced and examined for defects by a licensed elevator journey person at least once every 90 days, except for the following devices which shall be serviced and examined at least once every 180 days:

- (a) Dumbwaiters.
- (b) One-person elevators, electric and hand-powered.
- (c) Platform lifts and stairway chairlifts in buildings other than private residences.
- (d) Private residence inclined elevators installed under the requirements of the act for use by multiple residences.**

An accessible written record of all service and examination shall be maintained in the machine room or on-site if a machine room does not exist.

CHAPTER 2. ALL ELEVATORS

R 408.7026 Disconnecting means for new and altered elevators.

Rule 26. The disconnecting means for all elevators and escalators that have 208 volts alternating current (VAC) nominal, ~~3-phase,~~ shall be a heavy-duty type means and feature a dual cover interlock or a circuit breaker capable of being locked in the open position.

R 408.7029 Dormant elevators.

Rule 29. (1) An elevator, escalator, or moving walk which is inactive for 1 year shall be classified as dormant and placed out of service in compliance with section 8.11.1.4(b) of the ASME A17.1 code.

(2) A platform lift or stairway chairlift which is inactive for 1 year shall be classified as dormant and placed out of service as follows:

- (a) The device shall be lowered and any suspension means removed.
- (b) The power feed lines shall be disconnected from the machine disconnect switch and taped in compliance with section ~~40.1.510.1.6~~ of the ASME A18.1 code.
- (c) All landing entrances shall be secured in a closed position from inside the runway or hoistway.
- (d) Folding type devices shall be secured against movement.

(3) Before a dormant elevating device may be placed in service, it shall be inspected by the department and shall conform to these rules and the applicable section of the standard.

R 408.7030 Elevator and escalator monitoring.

Rule 30. All elevators and escalators may be monitored from a remote location. Monitoring shall consist of passing information from the elevator control to a remote location for the collection of information. A device shall not have the capability to adjust, alter, change or reset any switch, parameter, or system of the elevator control from any location except the corresponding car, hoistway, ~~or~~ machine room, **lobby panel, or fire command center**. The device shall not be capable of bypassing or resetting any safety or electrical protective device. **The monitoring means may be used to initiate car and hall landing calls or to secure floors from access.** Information collected shall be made available to the department upon request.

CHAPTER 3. ASME A17.1 MODIFICATIONS

R 408.7031a ASME A17.7/CSA B44.7.

Rule 31a. Section 1.2.1 of the ASME A17.1/CSA B44 code is amended to read as follows:

1.2.1 The purpose of this code is to provide for the safety of life and limb, and to promote the public welfare. Compliance with this code shall be achieved by either subdivisions (a), (b) and (d) or (c) and (d):

(a) Conformance with the requirements in ASME A17.1/CSA B44.

(b) Conformance with some of the requirements in ASME A17.1/CSA B44 and for systems, subsystems, components, or functions that do not conform with certain requirements in ASME A17.1/CSA B44, conform with the applicable requirements in ASME A17.7/CSA B44.7. Where the Michigan elevator rules make an exception to, addition to, or an amendment of, an ASME A17.1/CSA B44 code section the Michigan elevator rules shall govern over the corresponding section in ASME A17.7/CSA B44.7 and shall also obtain department approval.

(c) Conformance with the requirement in ASME A17.7/CSA B44.7. Where Michigan elevator rules make an exception to, addition to, or an amendment of, an ASME A17.1/CSA B44 code section the provisions of the Michigan elevator rules shall govern over the corresponding section in ASME A17.7/CSA B44.7 and shall also obtain department approval.

(d) Any ASME A17.7/CSA B44.7 certifications that violate the Michigan elevator rules exceptions, additions, or modifications to ASME A17.1/CSA B44 shall require approval from the department.

R 408.7032 Machinery space, machine rooms, control spaces, and control rooms.

Rule 32. Section 2.7 of the ASME A17.1 code is amended to read as follows:

2.7. A machinery space outside the hoistway containing an electric driving machine and an elevator controller shall be a machine room. The electric driving machine shall be located in a ~~machine~~**machinery** space within the elevator hoistway or outside the

hoistway in an elevator machine room. A controller shall be accessible only from a **machinery space**, machine room, control room, or hoistway.

R 408.7034 Enclosure of machine rooms and machinery spaces.

Rule 34. Section 2.7.1 of the ASME A17.1 code is amended to read as follows:

2.7.1. Machines, control equipment, sheaves, and other machinery shall not be exposed to the weather. Machine room, control room, and machinery-space enclosures shall conform to section 2.7.1.1 or 2.7.1.2, and shall also conform to 2.7.1.3 of the ASME A17.1 code, as applicable.

Machine rooms and control rooms shall be located at a hoistway landing associated with the equipment within the room. Elevator machine and control rooms may be located overhead, adjacent to, underneath the hoistway, or at a remote location. The entrance to the machine room or control room shall be not more than 25 feet, clear unobstructed walking pathway from the elevator hoistway door. The distance from the machine room door to the hoistway door may be over 25 feet when the machine room is located directly above the hoistway in a conventional layout. Pit and hoistway access doors shall not be a direct access between a hoistway enclosure and machine room or control room.

Elevators installed without a machine room or control room shall locate the required disconnecting means in a single machinery space or control space outside the hoistway located within 25 feet clear unobstructed walking pathway of the elevator hoistway door, inspection and test panel, and at the same hoistway landing. The disconnecting means shall be located in a single dedicated space, or dedicated room intended with or without full body entry, and shall be secured so only the elevator journey person or other qualified personnel may gain access.

Access to machine rooms, control rooms, machine spaces, or control spaces shall not be through restrooms, lavatories, locker rooms, or associated vestibules. Where enclosed ceilings are required or provided they shall be of a solid type with no access panels. Drop type ceilings shall not be permitted. Machine rooms, control rooms, machinery spaces, and control spaces shall not be used as a pass through or for access to other areas. Building access panels or doors are prohibited in these areas.

R 408.7035 ~~Sprinkler systems.~~**Rescinded.**

~~Rule 35. Section 2.8.3.3 of the ASME A17.1 code is amended to read as follows:~~

~~2.8.3.3. Sprinkler systems conforming to the Michigan building code, R 408.30401 to R 408.30547, may be installed in the hoistway, machinery space, machine room, control space, or control room. Sprinklers installed in elevator shafts and machine rooms shall meet the following requirements:~~

~~(1) In hoistways a side wall spray sprinkler shall be installed at the bottom of each hoistway, not more than 24 inches and not less than 12 inches above the floor of the pit. A guard shall be installed on the sprinkler head to prevent accidental tripping or activation.~~

~~(2) In elevator machine rooms automatic sprinklers of ordinary or intermediate temperature rating shall be provided.~~

~~Each system shall have a readily accessible shut-off valve, that is of the electronically supervised type, located outside the protected area. Where a fire panel is available, these valves shall be properly connected. Sprinkler systems are also subject to the requirements of sections 2.8.3.1.2 to 2.8.3.3.4, and 2.8.3.5, of the ASME A17.1 code.~~

R 408.7036 Reopening device for power-operated car doors or gates. **Rescinded.**

~~Rule 36. Section 2.13.5.1 of the ASME A17.1 code is amended to read as follows:~~

~~2.13.5.1. Where required by section 2.13.3.4 or 2.13.4 of the ASME A17.1 code, a power-operated car door shall be provided with a reopening device that will function to stop and reopen a car door and the adjacent landing door sufficiently to permit passenger transfer if the car door or gate is obstructed while closing. The reopening device used shall be effective for substantially the full vertical opening of the door in compliance with section 2.13.4.2 of the ASME A17.1 code.~~

~~The door reopening device and door open button shall remain in operation at all times when the elevator is operating on normal service. Any devices which are designed to bypass either door opening device when the door is open for a predetermined amount of time (nudging) shall not be installed. This does not include operation under fire and other emergency conditions. For operation under fire and other emergency conditions, if the closing kinetic energy is reduced to 3.5 J (2.5 ft-lbf) or less, the reopening device may be rendered inoperative.~~

R 408.7037 Illumination and outlets required; light fuses and circuit breakers; installation. **Rescinded.**

~~Rule 37. Section 2.14.7.1 1.2.1 of the ASME A17.1 /CSA B44 code is amended to read as follows:~~

~~2.14.7.1. Cars shall be provided with an electric light or lights conforming to sections 2.14.7.1.1 to 2.14.7.1.4 of the ASME A17.1 code. The fuses or circuit breakers for elevator car lights shall be installed in the machine room.~~

R 408.7040 Fire alarm initiating devices. **Rescinded.**

~~Rule 40. Section 2.27.3.2.1 of the ASME A17.1 code is amended to read as follows:~~

~~2.27.3.2.1. Fire alarm initiating devices shall be installed in compliance with the requirements of the Michigan electrical code, R 408.30801 to R 408.30880, in all of the following locations:~~

~~(a) Each floor served by the elevator.~~

~~(b) The associated elevator machine room, control space, or control room.~~

~~(c) The elevator hoistway, when required.~~

~~The fire alarm initiating devices required by section 2.27 of the ASME A17.1 code shall be installed as a stand-alone system. The initiating devices shall be installed so that only the elevator or group of elevators which are affected by the emergency shall be captured. No electrical connection shall be permitted between the stand-alone system and any other initiating device or fire alarm system, except, that the initiating devices may provide a supervisory signal to the fire panel. These initiating devices are part of the elevator control system and shall be installed by a licensed elevator journeyman or under the direct supervision of a licensed elevator journeyman.~~

~~Exception: A dry contact may be made available in the elevator controller to be connected to the building fire alarm system for supervision of the elevator stand-alone system. The dry contact shall be located such that any malfunction of either system will not sacrifice the integrity of the other system.~~

~~Fire alarm audible alarms shall not be placed within elevator machine rooms or control rooms. Visible alarm notification shall be provided in elevator machine rooms or control rooms when alarm notification appliances are required by the Michigan building code described in section 907.9.2.~~

R 408.7041 Machinery spaces, machine rooms, control spaces, and control rooms.

Rule 41. Sections 3.7 and 3.7.1 of the ASME A17.1 code is amended to read as follows:

3.7. A machinery space outside the hoistway containing a hydraulic machine and an elevator controller shall be a machine room. The hydraulic machine shall be located in a machine space within the elevator hoistway or outside the hoistway in an elevator machine room. The elevator controller shall be accessible only from a machine room, control room, or hoistway.

3.7.1. Hydraulic machines, control equipment, sheaves, and other machinery shall not be exposed to the weather. Machine room, control room, and machinery-space enclosures shall conform to the requirements of sections 2.7.1 to 2.7.7 and 2.7.9 of the ASME A17.1 code and the following:

Machine rooms and control rooms shall be located at a hoistway landing associated with the equipment within the room. Elevator machine and control rooms may be located overhead, adjacent to, underneath the hoistway, or at a remote location. The entrance to the machine room or control room shall be not more than 25 feet, clear unobstructed walking pathway from the elevator hoistway door. The distance from the machine room door to the hoistway door may be over 25 feet when the machine room is located directly above the hoistway in a conventional layout. Pit and hoistway access doors shall not be for direct access between a hoistway enclosure and machine room or control room.

Elevators installed without a machine room or control room shall locate the required disconnecting means in a single machinery space or control space outside the hoistway located within 25 feet clear unobstructed walking pathway of the elevator hoistway door, inspection and test panel, and at the same hoistway landing. The disconnecting means shall be located in a single dedicated space, or dedicated room intended with or without full body entry, and shall be secured so only the elevator journey person or other qualified personnel may gain access.

Access to machine rooms, control rooms, machine spaces, or control spaces shall not be through restrooms, lavatories, locker rooms, or associated vestibules. Where enclosed ceilings are required or provided they shall be of a solid type with no access panels. Drop type ceilings shall not be permitted. Machine rooms, control rooms, machinery spaces, and control spaces shall not be used as a pass through or for access to other areas. Building access panels or doors are prohibited in these areas.

R 408.7044 ~~Pipe supports and guards.~~**Rescinded.**

Rule 44. Section 3.19.2.3 of the ASME A17.1 code is amended to read as follows:

~~3.19.2.3. Piping shall be supported to eliminate undue stress at joints and fittings, particularly at any section of the line subject to vibration. Exposed portions of supply piping directly below the space between the hoistway and car sill in the elevator pit shall be protected with an approved type of guard. Any accessible hydraulic piping that is located outside the elevator machine room or hoistway shall have marking applied stating "Elevator Hydraulic Line" in letters that are at least 19 mm (.75 inch) high in a~~

~~contrasting color. The marking shall be visible after installation and applied at intervals not greater than 3000 mm (120 inches).~~

R 408.7050 ~~Enclosures for runways and driving machines.~~**Rescinded.**

Rule 50. Section 5.4.13.8 of the ASME A17.1 code is amended to read as follows:

~~5.4.13.8. Location of driving machine, alignment, and guarding of sheaves.~~

~~(1) The driving machine may be mounted on the car chassis or placed at a remote location. If remotely located, all intervening sheaves or sprockets shall be placed to ensure that ropes or chains travel in proper alignment. All sheaves or sprockets shall be guarded.~~

~~(2) A driving machine and controller shall be located within a locked enclosure. This enclosure shall be supported and braced so as to deflect not over 1 inch when subjected to a force of 100 pounds applied horizontally at any point.~~

R 408.7051 Type of operation.

Rule 51. Section 5.4.15.1 of the ASME A17.1 code is amended to read as follows:

5.4.15.1. The inclined elevator shall be operated by weatherproof constant pressure key switches **or constant pressure switch or button** at each landing and on the car. Key-operated switches shall be of the spring-return type and shall be operated by a cylinder type lock having not less than 5-pin or 5-disk combination with the key removable only when the switch is in the off position. **Constant pressure switches and buttons shall be hand operated and controlled by an adjacent on-off key switch with the key removable only when the key is in the off position.** The key shall be group 4 security in compliance with section 8.1 of the ASME A17.1 code.

R 408.7052 Electrical equipment and wiring requirements.

Rule 52. Section 5.4.15.5.1 of the ASME A17.1 code is amended to read as follows:

5.4.15.5.1. All electrical equipment and wiring shall conform to the requirements of the Michigan electrical code and ASME A17.1 sections **5.3.1.18.4, 5.3.1.18.5 and 5.3.1.18.6.** A fused disconnect switch or a circuit breaker shall be installed within the machine enclosure and connected to the power supply line to each electric motor. A hoisting motor shall have a manually reset type of electrical overload device.

R 408.7055 Record of oil usage.

Rule 55. Section 8.6.5.7 of the ASME A17.1 code is amended to read as follows:

8.6.5.7. For systems where part of the cylinder or piping, or both, are not exposed for visible inspection, a written record shall be kept of the quantity of hydraulic fluid added to the system and emptied from leakage collection containers and pans. The written record shall be kept in the machine room. If the quantity of hydraulic fluid loss cannot be accounted for, then the test specified in section **8.6.5.15.38.11.3.3.3** of R 408.7060 shall be done.

R 408.7055a Periodic test.

Rule 55a. Section 8.6.7.4.1 of the ASME A17.1 code is amended to read as follows:

8.6.7.4.1. (1) Private residence inclined elevators and lifts should be subject to the periodic tests specified in 8.6.4.19, 8.6.4.20, and 8.6.4.14 to 8.6.5.16. The test

requirements shall apply to the corresponding requirements in 5.4. Any additional requirements for this equipment should also be checked during these tests.

(2) Private residence inclined elevators installed under the requirements of the act for use by multiple residences, shall be subject to the periodic tests specified in 8.6.4.19, 8.6.4.20, and 8.6.5.14 to 8.6.5.16. The test requirements shall apply to the corresponding requirements in 5.4. Any additional requirements for this equipment shall also be checked during these tests.

R 408.7056 Firefighters' emergency operation.

Rule 56. Section ~~8.6.11.1~~ **8.6.11.1** of the ASME A17.1 code is amended to read as follows:

8.6.11.1. All elevators provided with firefighters' emergency operation shall be subjected quarterly to phase I recall by use of the key switch, and a minimum of 1-floor operation on phase II. Deficiencies shall be corrected. An accessible written record of test results shall be maintained in the machine room.

R 408.7058 ~~Rule 58. Section 8.7.3.23.3 of the ASME A17.1 code is amended to read as follows:~~ **Cylinders.**

Rule 58. Section 8.7.3.23.3 of the ASME A17.1 code is amended to read as follows:

8.7.3.23.3. Where a cylinder is installed, replaced, or altered, it shall conform to section 3.18.3 of the ASME A17.1 code. Sleeving of a cylinder shall not be permitted. If the plunger is not equipped with a stop ring conforming to section 3.18.4.1 of the ASME A17.1 code, the installation shall also conform to sections 3.18.1.2 and 3.18.2 of the ASME A17.1 code.

R 408.7059 Acceptance inspection and tests.

Rule 59. Section 8.10.1.1.1 of the ASME A17.1 code is amended to read as follows:

8.10.1.1.1. The acceptance inspection shall be made by an inspector employed by the authority having jurisdiction. All parts of the installation shall be inspected for conformity with the requirements of the Michigan elevator laws and rules and section 8.10 of the ASME A17.1 code. The American society of mechanical engineers A17.2-~~2010~~**2007**, guide-for inspection of elevators, escalators, and moving walks, ASME, a copy of which is adopted by reference in R 408.7024, is recommended as a guide in making the inspection. Balance load and maximum normal speeds with maximum rated load and no load shall be determined and recorded on forms furnished by the department.

R 408.7059a Periodic test tags.

Rule 59a. Section ~~8.6.1.7.28.11.1.6~~ **8.6.1.7.28.11.1.6** of the ASME A17.1 code is amended to read as follows:

8.6.1.7.28.11.1.6. An approved paper tag with the applicable code requirement or requirements and date or dates performed, and the name of the person or firm performing the test, shall be installed in the machine room or machine space for all periodic tests.

R 408.7060 Three-year inspection and test requirements.

Rule 60. Section ~~8.6.5.15.38.11.3.3.3~~ **8.6.5.15.38.11.3.3.3** is added to the ASME A17.1 code to read as follows:

~~8.6.5.15.38.11.3.3.3.~~ (1) Cylinders shall be tested at intervals of not more than 36 months.

(2) Three-year inspection and test requirements.

(a) The relief valve setting shall be in compliance with section 3.19.4.2 of the ASME A17.1 code. The relief valve shall be resealed if the relief valve setting is altered or if the seal is broken.

(b) Test the relief valve setting by first inching the empty car upward to engage the plunger stop ring or to engage other suitable blocking provided and then apply pressure from the pump to check the setting.

Procedures for set test are as follows:

(i) Put rated load in the car and locate it at any convenient level.

(ii) Open the disconnect switch and locate the elevation of the platform with respect to a convenient reference.

(iii) For cylinders that are not completely exposed, after not less than 2 hours, note the position of the platform with respect to the chosen reference. For cylinders that are completely exposed, after not less than 30 minutes, note the position of the platform with respect to the chosen reference. A change in the car position during a cylinder test that cannot be accounted for by visible oil leakage or temperature change of the oil indicates a failure of some type requiring further inspections, tests, or repairs. An accessible written record of all oil levels and all oil added shall be maintained in the machine room.

R 408.7060a Private residence elevators and private residence inclined elevators.

Rule 60a. Section 8.11.5.2 of the ASME A17.1 code is amended to read as follows:

8.11.5.2. (1) Private residence elevators should be subject to the periodic inspections specified in 8.11.2 and 8.11.3. The inspection requirements shall apply to the corresponding requirements in 5.3 and 5.4. Any additional requirements for this equipment should also be checked during these inspections.

(2) Private residence inclined elevators installed under the requirements of the act for use by multiple residences, shall be subject to the periodic inspections specified in 8.11.2 and 8.11.3. The inspection requirements shall apply to the corresponding requirements in 5.3 and 5.4. Any additional requirements for this equipment shall also be checked during these inspections.

CHAPTER 4. ASME A18.1 MODIFICATIONS

R 408.7063 Platforms: Rescinded.

~~Rule 63. Section 2.6.1 of the ASME A18.1 code is amended to read as follows:~~

~~2.6.1. Frame, floor, and platform entrance. The frame shall be of metal construction and have a factor of safety of not less than 5 based on the rated load. The floor shall be of metal or wood construction with a nonskid surface. One or more of the following shall be provided on each platform entrance:~~

~~(a) A solid door with an electric contact that is a minimum of 42 inches high. In no case shall the door be less in height than the height of the platform enclosure opening.~~

~~(b) Light rays that are provided at 3 inches and 12 inches above floor level.~~

~~(c) A proximity device that is effective for the full width of the opening and from 1 inch above floor level to the height of the platform enclosure opening.~~

~~-(d) Other types of devices approved by the board. The operation of the device shall remove the electric power from the motor and brake.~~

R 408.7064 Passenger restriction sign. Rescinded.

~~—Rule 64. Section 2.7.4 of the ASME A18.1 code is amended to read as follows:~~

~~—2.7.4. A passenger restriction sign shall be provided and placed on each landing door and on the platform. It shall be securely fastened in a conspicuous place. The sign shall state "mobility impaired persons only no freight" in letters not less than 1/4 inch (6 mm) high and shall include the international symbol for accessibility.~~

R 408.7065 Passenger restriction sign. Rescinded.

~~—Rule 65. Section 3.7.5 of the ASME A18.1 code is amended to read as follows:~~

~~—3.7.5. A passenger restriction sign shall be provided and placed on each landing door and on the platform. It shall be securely fastened in a conspicuous place. The sign shall state "mobility impaired persons only no freight" in letters not less than 1/4 inch (6 mm) high and shall include the international symbol for accessibility.~~

R 408.7066a Free passage width and clearances. Rescinded.

~~—Rule 66a. Section 6.1.1 of the ASME A18.1 code is amended to read as follows:~~

~~—6.1.1. A free width of not less than 500mm (20 in.) shall be provided. If the platform can fold when in use, the distance will be measured for the folded position.~~

~~—Clearances between the platform and adjacent surfaces shall be not less than 20 mm (0.75 in.). At no point in its travel shall the edge of the platform facing the upper landing be more than 600 mm (24 in.) above a step or landing as measured vertically.~~

R 408.7067 Runways. Rescinded

~~—Rule 67 Section 7.1.1 of the ASME A18.1 code is amended to read as follows:~~

~~—7.1.1. A free passage width of not less than 500 mm (20 in.) shall be provided. If the seat and platform can be folded when not in use, the distance shall be measured from the folded position. The structure on which the equipment is installed shall be capable of safely supporting the loads imposed.~~

CHAPTER 5. ASME A90-1 MODIFICATIONS

R 408.7069 Applicability of national standard and rules of board.

Rule 69. (1) This rule applies to manlifts, as described in the ASME A90.1-~~2009~~2003, which is adopted by reference in R 408.7003, that are used only to carry plant personnel in granaries, flour mills, parking garages, and similar buildings or occupancies. Belt manlifts shall not be used by the public and, if located in buildings to which the public has access, shall be located in an enclosure that is protected by self-closing, spring-locked doors. Keys to the doors shall be available to employees. The use of belt manlifts during construction is prohibited.

(2) The hoistway enclosure shall comply with the Michigan building code, R 408.30401 to R 408.30547, and shall maintain the fire rating of the structure.

(3) The travel of any single belt manlift installed after February 14, 1968 shall not exceed 100 feet.

CHAPTER 6. ANSI A10.4 MODIFICATIONS

R 408.7071 Location.

Rule 71. Section 5.4.8 of the ANSI A10.4 standard is amended to read as follows:

5.4.8. (1) A personnel hoist shall be installed not less than 10 feet from any other lifting or lowering apparatus except other personnel hoists.

(2) A hoistway shall not be located either partially or wholly over sidewalks or passageways.

(3) If tower cranes are installed such that the boom or trolley may go over or into the 10-foot restricted area, ~~then both of the following shall apply:~~ **then the personnel hoist shall be unoccupied anytime the boom or trolley passes over the restricted area. The evacuation of the personnel hoist shall be the responsibility of the crane operator and the general contractor.**

~~(a) Limit switches shall be located on both the booms and trolleys of the tower cranes to activate audio and visual alarms and also prevent the boom or trolley from going over or working within 10 feet of the personnel hoist while the hoist is occupied. (b) Key override switches shall be installed to allow the boom and trolley to go into the 10 foot restricted area when moving material, or at any time the boom or trolley passes over the restricted area. The personnel hoist shall be unoccupied at this time. The evacuation of the personnel hoist is the responsibility of the crane operator and the general contractor.~~